

REMARKS

The Interview Summary incorrectly states that the polystyrene polymer was selected from the group consisting of polystyrene **homopolymer** consisting of styrene units and high impact polystyrene polymers consisting of styrene units. The term "homopolymer" had been deleted in the October 8, 2003 preliminary amendment, and is inconsistent with the description of the polystyrene that follows – in particularly inconsistent with high impact polystyrene which is not a homopolymer. Claim 1, as currently amended, does not contain the citation of "homopolymer".

Claim 1 has been amended to cite "consisting essentially of" instead of "comprising" in line 2. As cited in the Interview summary, Applicant intends "consisting essentially" to exclude substantial amounts of macromolecular materials such as the SAN of the prior art, although HIPS would not be excluded since HIPS is embraced by "high impact polystyrene polymers". Applicant does not intend to exclude the minor amounts of usual additives of PPO listed in the Specification at the bottom of page 9, which are "by way of example flame retardants, colorants, pigments, anti-UV agents, antioxidants, glass or carbon fibers, plasticizers, antistatic additives, processing aids and inorganic fillers such as silica or calcium carbonate."

Polystyrene (PS) or high impact polystyrene (HIPS) form a true alloy with PPO. As such, no compatibilizer is needed. Surprisingly it was found that the addition of an SBM impact modifier provided much improved impact strength.

SAN, ABS and most other plastics do not form an alloy with PPO, but rather form an incompatible blend. These incompatible blends require the use of a compatibilizer, such as the tri-block compatibilizers described in the art. The major portion of these blends is the SAN, or ABS polymer, with the minor amount being the PPO or PPO/PS, or PPO/HIPS

alloy. Such blends are excluded from Applicant's claims, which are directed only to the alloys themselves.

Additionally it is noted that the term "SBM" is used loosely in the Mehler reference. The SBM in this reference is really meant to be an S-EB-M.

Neither the Gottschalk nor the Mehler reference describes a rigid material consisting essentially of a polymer alloy of PPO and PS or HIPS, with an SBM impact modifier. Thus the cited art fails to present a *prima facie* case of anticipation under 35 U.S.C. §102(b) of the claims as amended.

Examination and allowance of the amended claims are earnestly solicited.

Respectfully submitted,



Thomas F. Roland
Attorney for the Applicants
Reg. No. 42,110

Date: October 10, 2003

ATOFINA Chemicals, Inc.
2000 Market Street
Philadelphia, PA 19103-3222
Tel (215) 419-7314
Fax (215) 419-707